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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,170	12/16/2003	Glenn Tarcea	LEGAP014	4449
21912	7590	05/19/2006	EXAMINER	
VAN PELT, YI & JAMES LLP 10050 N. FOOTHILL BLVD #200 CUPERTINO, CA 95014			MASKULINSKI, MICHAEL C	
			ART UNIT	PAPER NUMBER
			2113	

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/737,170	Applicant(s) TARCEA ET AL.	
	Examiner Michael C. Maskulinski	Art Unit 2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-23 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/11/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Non- Final Office Action

Specification

1. The disclosure is objected to because of the following informalities: on page 1, under the section CROSS REFERENCE TO RELATED APPLICATIONS, the Application Nos. need to be entered.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-8, 10, 17, 19, 20, 22, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Wipfel et al., U.S. Patent 6,338,112 B1.

Referring to claims 1 and 22, in column 16, lines 43-44, Wipfel et al. disclose that each processor has its own local queue (defining a queue; allocating a media resource to the queue). Further, in column 15, lines 8-11, Wipfel et al. disclose allocating resources to queues (and associating a media resource request with the queue).

Referring to claim 2, in column 15, lines 11-14, Wipfel et al. disclose using a head pointer pointing to a linked list of resources (wherein associating a media resource request with the queue comprises associating the media resource request with a request category associated with the queue).

Referring to claim 3, in column 15, lines 11-14, Wipfel et al. disclose using a head pointer pointing to a linked list of resources. Further, in column 15, lines 17-19, Wipfel et al. disclose that the queue and lock management means controls access to the local queues using head pointers and interrupt handlers (further comprising defining a request category; and associating the request category with the queue; wherein associating a media resource request with the queue comprises associating the media resource request with the request category).

Referring to claim 5, in column 6, lines 38-44, Wipfel et al. disclose a shared disk array accessible by a server (wherein the media resource comprises a media storage device).

Referring to claim 6, in column 6, lines 62-67, Wipfel et al. disclose a shared tape (wherein the media resource comprises a tape drive).

Referring to claim 7, in column 6, lines 38-39, Wipfel et al. disclose a shared disk array, such as a redundant array disks. A request to mount a volume of removable storage media on the media resource would be inherent to a disk array since the disks are mounted when they are used and then unmounted.

Referring to claim 8, in column 1, lines 13-16, Wipfel et al. disclose allocating of nodes, memory, and other resources amongst nodes (further comprising receiving the media resource request from a host).

Referring to claim 10, in column 15, lines 37-40, Wipfel et al. disclose obtaining the lock, parceling out the resources, and then releasing the global queue lock (wherein the media resource is allocated exclusively to the queue).

Referring to claim 17, in column 15, lines 41-46, Wipfel et al. disclose that if the resources are available, then they are given to the calling application (receiving an indication that the media resource is available; selecting from the queue a selected request to be serviced by the media resource; and servicing the selected request).

Referring to claim 19, in column 15, lines 11-14, Wipfel et al. disclose that a queue and lock management means controls access to the global queue using a head pointer pointing to a linked list of resources. Since data is stored on different storage mediums, it would be inherent to the system of Wipfel et al. to specify a specific media resource in order to obtain specific types of data.

Referring to claim 20, in column 15, lines 41-46, Wipfel et al. disclose associating resource requests with different local queues and in column 16, lines 43-50, Wipfel et al. disclose associating each local queue with specific processors (wherein the media resource request is associated with a client on which a set of data associated with the media resource request is stored and the media resource request is associated with the queue based at least in part on the client with which the media resource request is associated).

Referring to claim 23, in column 16, lines 43-44, Wipfel et al. disclose that each processor has its own local queue (defining a queue; allocating a media resource to the queue). Further, in column 15, lines 8-11, Wipfel et al. disclose allocating resources to queues (and associating a media resource request with the queue). In column 7, lines 3-6, Wipfel et al. disclose a computer readable medium with instructions for performing the queue.

4. Claims 1, 9, 22, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Forecast et al., U.S. Patent 6,230,200 B1.

Referring to claims 1 and 22, in column 13, lines 7-15, Forecast et al. disclose a Ready queue for allocating isochronous tasks designated for a tape (defining a queue; allocating a media resource to the queue; and associating a media resource request with the queue).

Referring to claim 9, in column 7, lines 47-49, Forecast et al. archiving data from a file from the network to tape (comprising receiving the media resource request from a backup application).

Referring to claim 23, in column 13, lines 7-15, Forecast et al. disclose a Ready queue for allocating isochronous tasks designated for a tape (defining a queue; allocating a media resource to the queue; and associating a media resource request with the queue). Further, in column 2, lines 51-55, Forecast et al. disclose a program for allocating resources.

5. Claims 1, 11-16, 18, and 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Peters et al., U.S. Patent 6,760,808 B2.

Referring to claims 1 and 22, in Figure 19, Peters et al. disclose defining a queue; allocating a media resource to the queue; and associating a media resource request with the queue.

Referring to claim 11, in column 8, lines 3-6, Peters et al. disclose that when an application requests access to a selected segment of data on one of the storage units, the storage unit places the request on a queue that is maintained for the storage unit (wherein the queue comprises a first queue, the media resource comprises a first media resource, and the media resource request comprises a first media resource request). Further, in column 8, lines 13-15, Peters et al. disclose that each request from an application may be processed by the storage unit that has the shortest queue of requests (receiving a second media resource request; determining that the second media resource request is not associated with the first queue; and associating the second media resource request with a default queue).

Referring to claim 12, in column 8, lines 13-15, Peters et al. disclose that each request from an application may be processed by the storage unit that has the shortest queue of requests (associating a second media resource with the default queue).

Referring to claim 13, in column 23, lines 54-55, Peters et al. disclose that each queue contains an entry (assigning the media resource request a place in the queue).

Referring to claim 14, in column 24, lines 22-26, Peters et al. disclose that the storage unit processes the requests in its disk queues in their priority order (wherein assigning the media resource request a place in the queue comprises determining

whether the media resource request has a higher priority than any other media resource request currently pending in the queue).

Referring to claim 15, in column 23, lines 54-65, Peters et al. teach assigning the media resource request a place in the queue comprises placing the media resource request in line behind previously-received media resource requests pending in the queue unless the media resource request has a higher priority than one or more previously-received media resource requests pending in the queue.

Referring to claim 16, in column 23, lines 54-59, Peters et al. disclose a priority field indicating the priority of the request to determine its place in the queue (receiving an indication that the media resource request should be moved to a different place in the queue than the place currently assigned).

Referring to claim 18, in column 23, lines 44-48, Peters et al. disclose that storage requests may be separated further from requests from authoring tools and requests from service and maintenance programs. Requests from authoring tools may be separated further from service and maintenance requests (wherein the media resource request is associated with the queue based at least in part on data included in the request).

Referring to claim 21, in column 23, lines 44-48, Peters et al. disclose that storage requests may be separated further from requests from authoring tools and requests from service and maintenance programs. Requests from authoring tools may be separated further from service and maintenance requests (wherein the media resource request is associated with an application that generated the media resource

request and the media resource request is associated with the queue based at least in part on the application which generated the media resource request).

Referring to claim 23, in Figure 19, Peters et al. disclose defining a queue; allocating a media resource to the queue; and associating a media resource request with the queue. Further, in column 6, lines 1-3, Peters et al. disclose the use of applications.

Allowable Subject Matter

6. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter.

Referring to claim 4, the prior art does not teach or reasonably suggest wherein associating a media resource request with the queue comprises associating the media resource request with a data zone associated with the queue.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art is related to establishing and using queues in a storage system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Maskulinski whose telephone number is (571) 272-3649. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael C Maskulinski
Examiner
Art Unit 2113